Commercial Software Licensing

Information Technology Asset Management (ITAM): Software License Management (SLM) Overview

September 2015

Webinar Information

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- Teleconference audio will be muted for all participants.
- Please submit any questions or comments via the webinar chat.
- Questions will be addressed at the end, time permitting.

DoD ESI Team / Instructor Introductions

Ed Zick | *Senior Program Analyst, Information Enterprise Governance, Office of the DoD CIO*
DoD ESI Co-Chair

Responsible for DoD interoperability policy, guidance, and direction to create information advantage for DoD personnel and mission partners. Broad experience in Information Technology, Information Management, and Command and Control Systems. Retired from the U.S. Air Force after serving more than 21 years with a variety of leadership and staff officer experience involving command and control communications as well as information management and technology.

Jim Cecil | *IT Management Consultant, DoD CIO*

Enterprise IT asset management, portfolio management, strategic sourcing, and program management consultant with over 20 years of experience in managing and implementing commercial and custom information technology.

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DAWIA PM & Purchasing Level II Training

Table of Contents

A Basic Understanding of IT Asset Management

IT

- Software
- Hardware
- Networks, Routers, Switches Equipment

Asset

Typically, “tangible” items you own, lease or license and “intangible” items like software applications or a digital or electronic product

Management

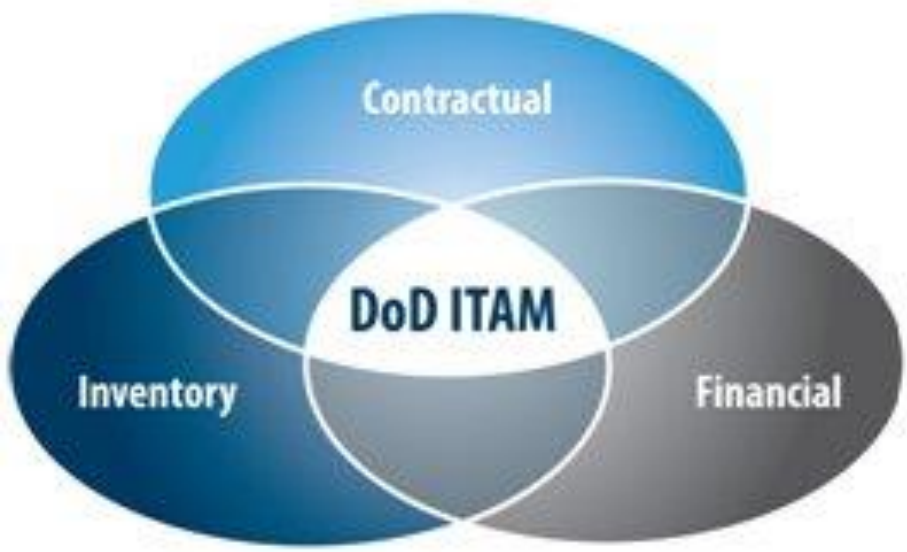
The methods and tools used to track asset inventory, location, usage and disposition of assets in your control or on your physical premises (not cloud-based)

A more detailed definition of ITAM

ITAM is a function, a set of processes and a role served by one or more people in an Enterprise

Asset management is a **systematic process that joins contractual, financial, inventory, and IT governance functions** to support life cycle management and strategic decision making for the IT environment.

ITIL / SACM



IT Governance

ITAM Benefits

Inventory Control

Know what you have & where it is

- Best business practice
- Basic fiduciary duty
- Enables self audit & compliance

Security

Ensure Security & Integrity

- Prevent unauthorized use
- Ensure security patches & recommended changes are deployed

Cost Control

Avoid unnecessary purchases

- Entitlement Management
- Strategic Vendor Management

Customer Service

Improve Experience

- Better Service Desk Response
- Better Efficiency
- Faster Response Time

Core Requirements

WHAT IT ASSETS DO WE HAVE?

WHO IS USING EACH ASSET?
Authorized users only?

HOW MANY DO WE HAVE?

HOW ARE THEY USED?

- Is a device a server or a laptop?
- Is software used IAW license?

HOW & WHEN DID WE RECEIVE IT?

WHERE ARE THEY NOW?

- Are they deployed or sitting on a shelf?
- Have changes been received, deployed and recorded accurately?

Define at the unit level – e.g., a single router, server or software application

Assets tagged by the manufacturer or publisher are helpful

Are you using the authorized quantity?

Can use the Delivery Order or license as the source for data

Summary of Objectives and Benefits

IT Asset Management (ITAM) integrates the physical, technological, contractual, and financial aspects of information technology assets.

ITAM business practices have a common set of objectives and benefits:

- **Control inventory** that is purchased and used.
- **Reduce the cost** of purchasing and managing assets.
- **Select the proper tools** for managing assets.
- **Manage the asset life cycle** from planning to disposal.
- **Create standards and processes** for managing assets.
- **Achieve compliance** with relevant standards and regulations.
- **Improve IT service** to end users.

LEVEL

1. IT Asset Management (ITAM)

2. **Software Asset Management** (SAM)

   Hardware Asset Management (HAM)

3. **Software License Management** (SLM)

(SAM): Policies/procedures for managing software assets in an IT environment - should include license audits, upgrades, maintenance, etc. – i.e., all changes

(SLM): Policies/procedures for managing Software Licenses - should include license audits, upgrades, maintenance, etc. – i.e., all changes

Asset Management Life-Cycle View

Plan Need / Requirement	Buy / Acquire	Receive	Deploy	Modify/ Change	Dispose / Expire
Assess IT needs and measure against currently available assets.	Move available assets to point of need or buy new items as required.	Receive new assets and record receipt data.	Deploy assets IAW plan and record location and other data.	Use change mgmt. processes to identify, create, deploy and validate changes including asset retirement.	

Software License Management (SLM):

A mechanism for **systematically ensuring compliance** with system vendor and independent software vendor (ISV) software licenses — for example, maximum users, maximum nodes and maximum MIPS.

(Gartner IT Glossary, May 7, 2015)

Processes Technology Data Standards People

SLM Benefits

Inventory Control

Know what you have & where it is

- Avoid over deployment
- Track utilization
- Comply with license agreements

Security

Ensure License Security & Integrity

- Identify obsolete versions
- Identify vulnerable assets
- Provide secure alternatives
- Avoid “piracy”

Cost Control

Avoid Unnecessary Licenses

- Optimize use of entitlements
- Manage vendor relationships
- Avoid compliance costs

Customer Service

Improve Experience

- Better Service Desk Response
- Better Efficiency
- Faster Response Time

WHAT LICENSES DO WE HAVE?

WHO IS USING THE LICENSES?

Authorized users only?

HOW MANY LICENSES DO WE HAVE?

HOW ARE THE LICENSES USED?

- What are the permitted uses and who are the authorized users?
- Is software being used IAW license quantity and terms?

HOW & WHEN DID WE RECEIVE THE LICENSES?

WHERE ARE THE LICENSES NOW?

- Are the licenses deployed or sitting on a shelf?
- Have changes been received, deployed and accurately recorded?

Define at the unit level – e.g., a single software application license

Software tagged by the publisher is helpful

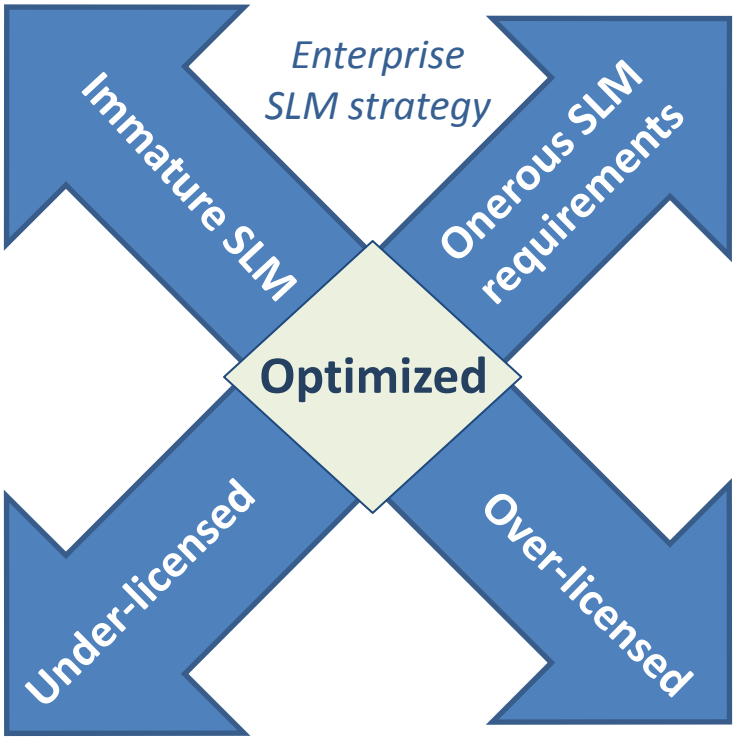
Are you using the authorized quantity?

Can use the Delivery Order or license as the source for data

SLM Processes Optimize Resources

Costly manual processes

Administrative burden



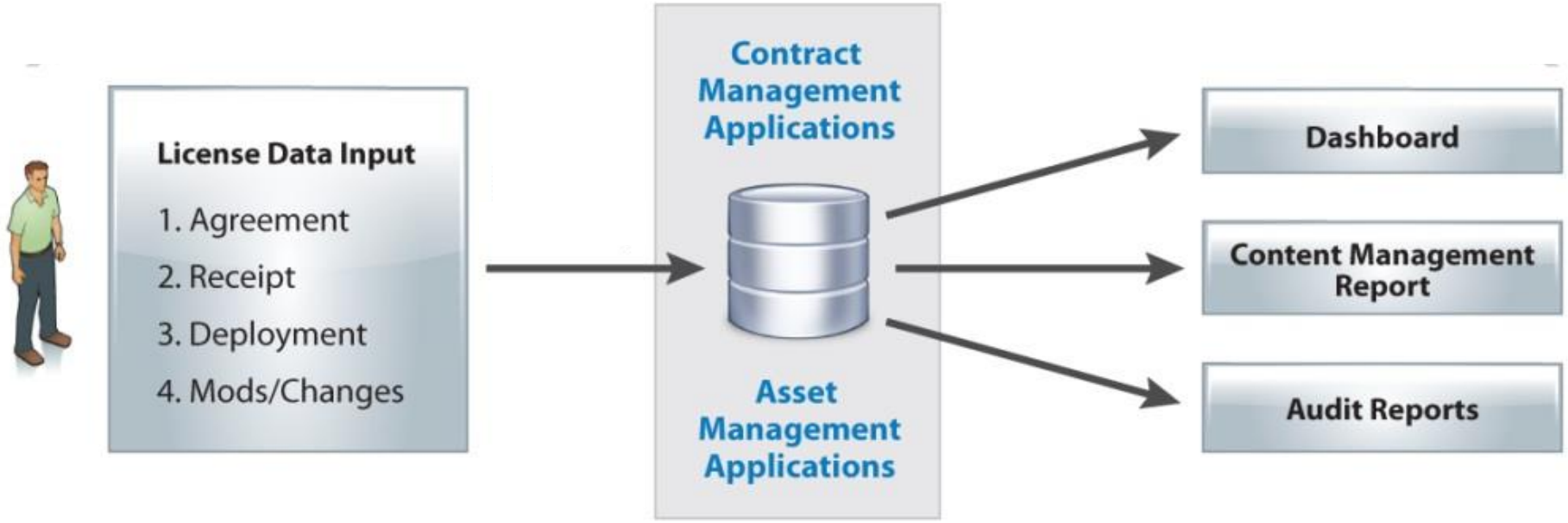
- *Document ownership*
- *Identify rights*
- *Track usage*
- *Report compliance*

- *Reduce "shelfware"*
- *Select "right" products & bundles*
- *Negotiate volume purchases*
- *Maintain only what you use*

Risk: Compliance costs

Cost: Excess spend

SLM Application Conceptual Design



Asset Attributes & Status | **Data Repositories** | **Reporting**

Standards: Asset Identification, Entitlements

Common SLM Reporting Data

Source/Activity:	Agreement/ Contract	Receiving	Deployment	Changes/ Modifications
Description	License agreement data and a completed, signed copy of the agreement (License Grant).	Compare License receipt with license agreement. Document and resolve discrepancies.	Device and location where software is deployed.	Details regarding software updates, patches, fixes, etc.
Data	• Product • Part Number • Version • Publisher/OEM • Vendor • Agreement date • Quantity • Price • Entitlements	• Order/Agreement number • Date of receipt • Part number • Quantity • etc.	• Date • Quantity • Device • Location • User • Organization	• Date (due & actual) • Quantity • Device • Location of software changes

Contract Data Management Considerations

Access to Contracts & EULAs is Critical

Data categories

- Product information
  - product name, publisher product number (if available), quantity ordered
- Use Rights
  - Entitlements
  - Authorized uses
- Authorized users
- SLAs
  - Service Level Requirements & Performance
  - Penalties & Fees
- Warranty
- Derivative works ownership
- Maintenance and Support

License Types:

- Perpetual
- Term/subscription
- Third party licenses
- Open Source
- Cloud computing/SaaS
- Test/development
- Educational
- Enterprise licensing

Examples of Tools

- Identity Management
- CMDB / Common Software Library
- Asset Discovery
- Problem Reporting
- Contract Management
- Problem Management
- Inventory Management
- Change Management
- License Management

Sample SLM Roles

ITAM Director

Establish and Implement ITAM Policies & Procedures

SAM Manager

Manage SAM Processes

SLM Manager

Manage SLM Processes

Procurement & Contract Management

Record and enforce license terms including quantity and use rights

IT Inventory

Record and track all inventory records from receipt through retirement

Financial Management

Record & track all dollar values

Change Management

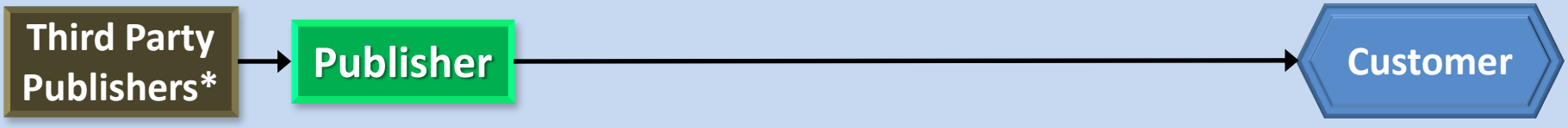
Implement and execute change management

Challenges with Intellectual Property & Impact on SLM

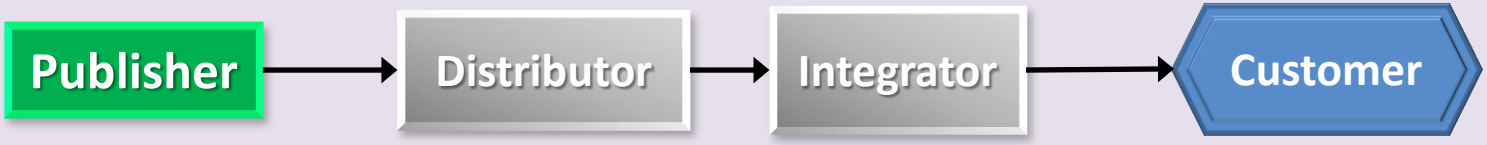
- Unique rights for each product / license
- Bundled third-party licenses
- Software embedded in hardware devices
- Tracking upgrades received through maintenance or software assurance
- Identifying and reconciling software products (purchased vs. installed)

Distribution Channels ➔ Complex Relationships

Example 1: Direct to publisher (with third-party licenses)



Example 2: Through System Integrator, with Distributor as Intermediary to Publisher



Example 3: Through Value Added Reseller (VAR)

** e.g. "run-time" licenses, restricted use licenses, third party software developers, open source software*

SLM Summary

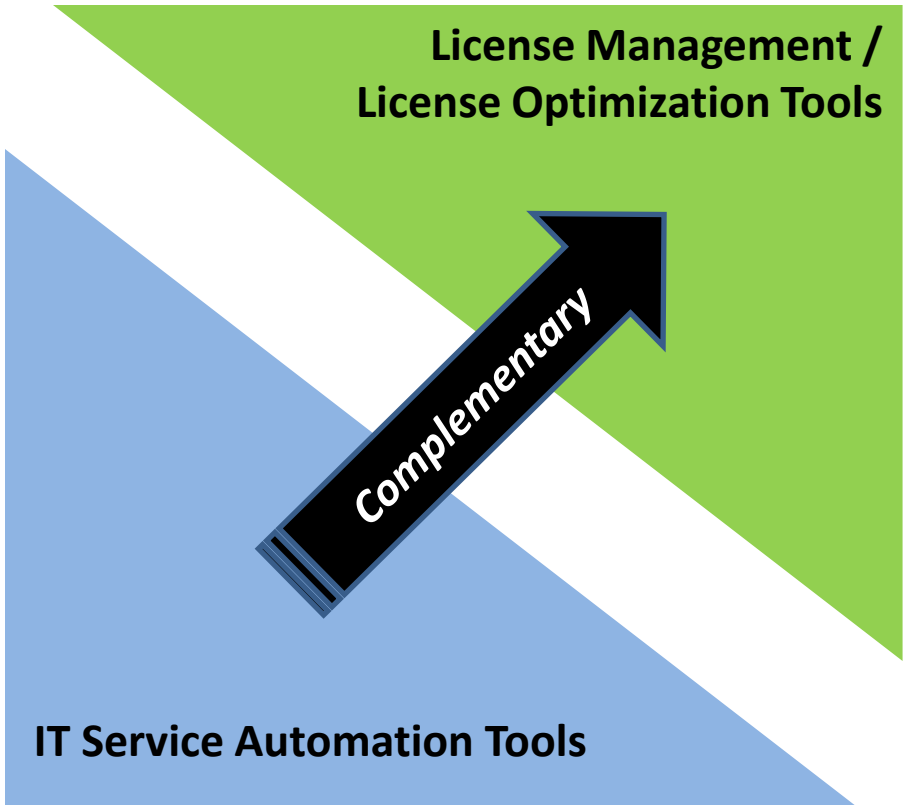
- SLM focuses on ensuring alignment between the licenses required and the licenses purchases
- Effective SLM reduces costs from buying too many or too few licenses and provides visibility into vulnerable software on your networks
- SLM is data driven, and relies on automation to collect software asset data from purchasing, contracting, and IT operations processes
- Unique skills are required

** e.g. "run-time" licenses, restricted use licenses, third party software developers, open source software*

Wide Spectrum of Commercial ITAM/SLM Tools

Decision support

Operations



License optimization

Compliance/audit reporting

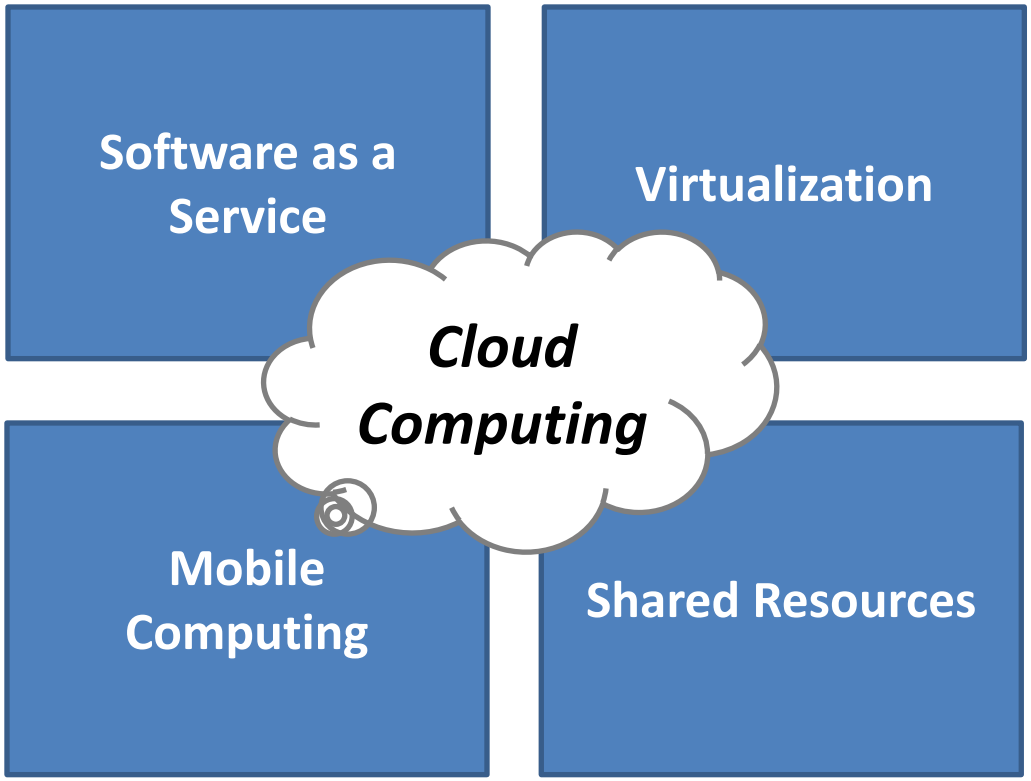
Service desk automation

Asset discovery

Configuration management

Network operations

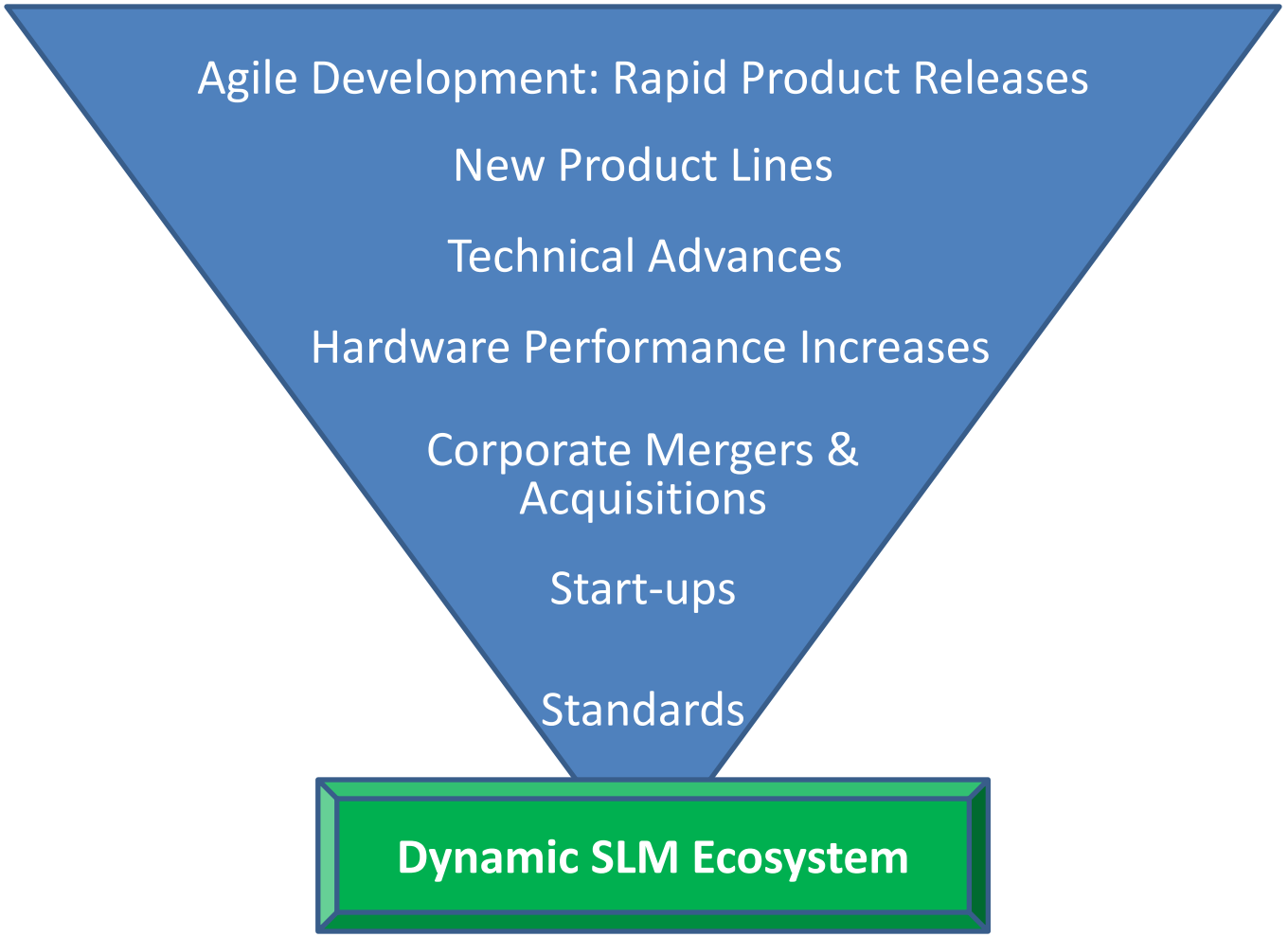
New Technology and Business Models are Driving Changes



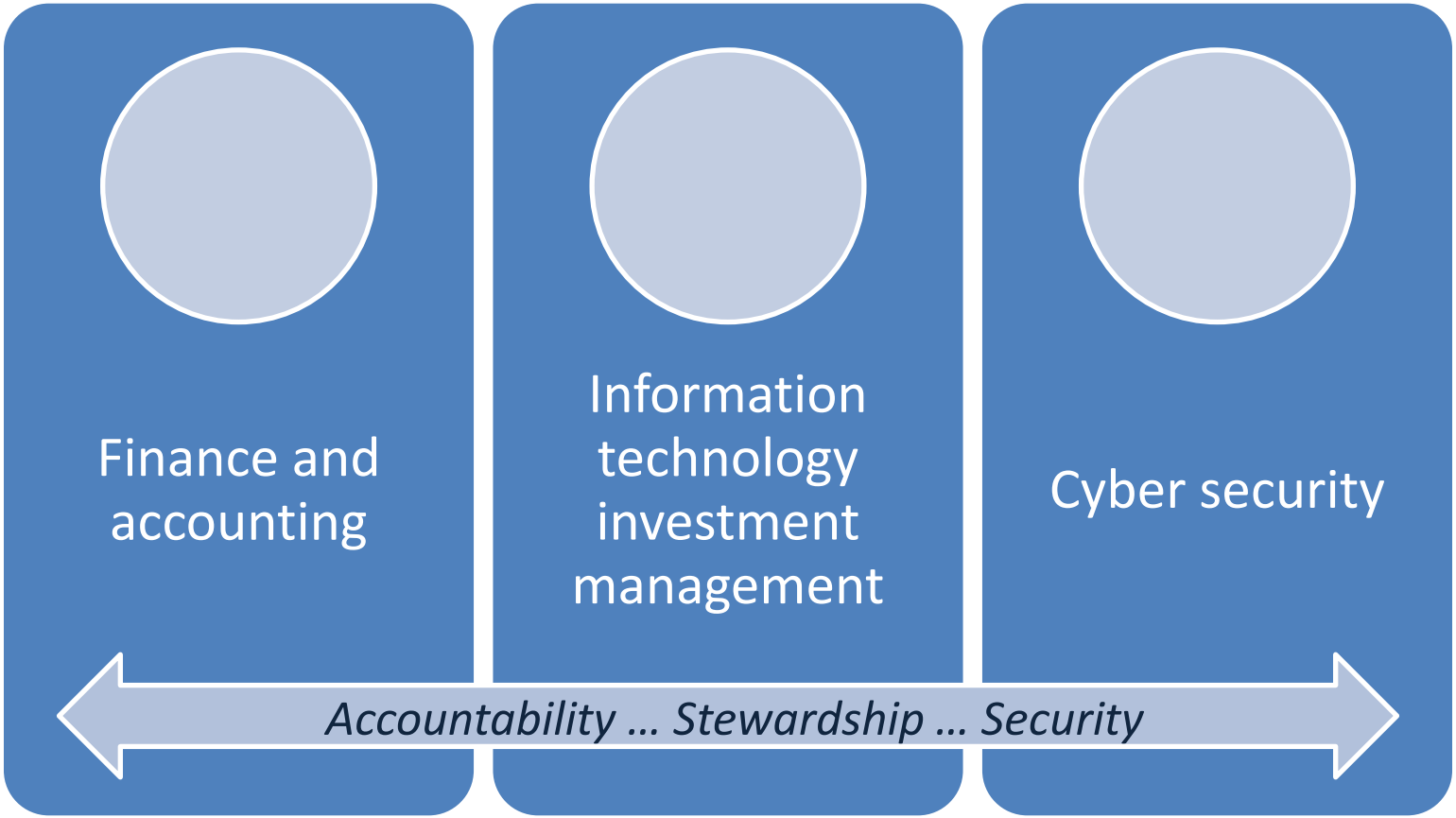
Evolving License Models Are Increasing Complexity

- **Subscription Licensing – How do we pay?**
- **Enterprise Licenses – How do we count?**
- **Open Source Software – Who owns the code?**

Rapid Changes in the Software Industry Increase SLM Burdens



SLM in Policy



Federal Government Policy & Guidance

	Federal Policy & Guidance Reference	Description
1.	**GAO-14-413 Federal Software Licenses: Better Management Needed to Achieve Significant Savings Government-Wide**	May 2014 report that recommends adoption of leading practices for software license management across the Federal government
2.	**Executive Order 13103 – Computer Software Piracy (December 1998)**	Prevent and combat computer software piracy by U.S. Government Agencies. Establish procedures to ensure that the agency has present on its computers and uses only computer software not in violation of applicable copyright laws, including: (1) installed software inventories of the software on its computers; (2) authorization software inventories; and (3) adequate recordkeeping systems.
3.	**Executive Order 13589 – Promoting Efficient Spending (November 2011)**	Sec. 4. IT Devices. Assess current device inventories and usage…ensure that they are not paying for unused or underutilized IT equipment, installed software, or services…consider agency-wide IT solutions for desktop services, email, and collaboration tools.
4.	**NIST Information Security Continuous Monitoring (SP 800-137)**	SP 800-137: (Asset Management) Maintain inventory of software and hardware within the organization. (License Management) Track license compliance, monitor usage status, and manage the software asset life cycle.
5.	**Federal IT Acquisition Reform Act (FITARA) / FY15 NDAA**	Includes provisions that require the federal government to: inventory all IT and develop a federal strategic sourcing initiative for the use of government-wide software user license agreements. FITARA was included NDAA FY15.
6.	**Clinger-Cohen Act (1996) / USC Title 40 CIO Act / USC Title 10 DoD CIO**	Designed to improve the way the federal government acquires, uses and disposes IT. Title 10 defines additional responsibilities for DoD & MILDEP CIOs.

Recent DoD Policy & Guidance

	Policy Reference	Description
1.	**FY14 NDAA Section 935 & FY13 NDAA Section 937**	DoD Software License Inventory Reporting Plan and DoD Selected Software License Inventory data call
2.	**Information Security Continuous Monitoring: JTF-GNO CTO 07-12 Deployment of Host Based Security System (HBSS), etc.**	Cyber Security Analytic Cloud (CSAC), Continuous Monitoring and Risk Scoring (CMRS), Host Based Security System (HBSS), Assured Compliance Assessment Solution (ACAS), etc.
3.	**DON Software Acquisition Training Requirements**	DASN AP memorandum requiring specialized software licensing training for all applicable DON contracting personnel. Related: DON IG: The Navy's Management of Software Licenses Needs Improvement (August 7, 2013)
4.	**DoD ESI / DFARS 207.84**	Enterprise software agreements
5.	**Financial Improvement and Audit Readiness (FIAR)**	Accounting for "Internal Use Software"

SLM Methodology and Best Practices	Software Management Standards	IT Management Frameworks
Int'al Assn of IT Asset Managers (**IAITAM**) *ITAM Professional Association*	**ISO/IEC 19770** *IT Asset Management*	IT Infr. Libr. Service Asset Config. Mgmt (**ITIL SACM**) *Maintains asset information across the entire life cycle*
Business Software Alliance (**BSA**) *Pioneers compliance programs for legal software use*	***TagVault.org*** *Neutral not-for-profit certification authority for software tagging*	Control Objectives for Information & Related Technology (**COBIT**)
Int'l Business Software Management Assn (**IBSMA**) *Nonprofit assn of bsns-focused software mgmt (SAM) professionals*	**NIST Common Platform Enumerator (CPE)** *Structured naming scheme for information technology systems, software, and packages*	**NIST SP 800-137** **NIST SP 800-53** *Continuous Monitoring & Security Controls*
GSA IT Acquisition Gateway *Software Corridor* (hallways.cap.gsa.gov/ITSoftware)	Distributed Management Task Force (**DMTF**) *Industry standards org. to simplify manageability of network-accessible technologies*	**ISO/IEC 20000** *IT Service Management*

IT Governance

- IT Governance (ITG) defined by Gartner

- IT governance (ITG) is defined as the processes that ensure the effective and efficient use of IT in enabling an organization to achieve its goals. IT demand governance (ITDG—what IT should work on) is the process by which organizations ensure the effective evaluation, selection, prioritization, and funding of competing IT investments; oversee their implementation; and extract (measurable) business benefits. ITDG is a business investment decision-making and oversight process, and it is a business management responsibility. IT supply-side governance (ITSG—how IT should do what it does) is concerned with ensuring that the IT organization operates in an effective, efficient and compliant fashion, and it is primarily a CIO responsibility.

Questions?

Please submit your questions via the webinar chat.

Briefing slides will be posted to www.ESI.mil for download.

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